

## REMARKS

The claims remaining in the present application are Claims 1-23. Claims 1, 14 and 21 have been amended. No new matter has been added as a result of these amendments.

### 35 U.S.C. §102

Claims 1-3, 5-17, and 19-23 are rejected under 35 U.S.C. §102 as being anticipated by Kleinsorge et al., U.S. Pat. No. 6,247,109 (hereinafter, Kleinsorge). The rejection is respectfully traversed for the reasons below.

Claim 1 recites:

A system having a partitioned memory, said system comprising:  
a processor;  
a hardware implemented memory router coupled to said processor;  
memory coupled to said memory router;  
said memory router configured to store memory partition information, said information describing the memory allocated to said processor; and  
said memory router operable to map a memory access request having an address from said processor to an address in said memory allocated to said processor, wherein routing of data between the processor and the memory coupled to said memory router is not under control of software.

Claim 1 recites a limitation of "a hardware implemented memory router." The rejection argues that Kleinsorge's computer system 200, when functioning and operating to carry out the memory mapping/routing acts and performs as the claimed hardware implemented router. The Applicants respectfully disagree. In contrast, Kleinsorge discloses a software-implemented method of routing memory requests. For example, Kleinsorge discloses a console program implements and enforces configuration constraints (col. 12, lines 5-6). Thus,

Kleinsorge has *software implemented routing*, according to Applicants understanding.

The rejection further argues that it is well known in the art that any functional hardware can also be performed/implemented by software. In essence, the rejection is arguing that it would have been obvious to one of ordinary skill in the art to modify Kleinsorge. Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim (Lindemann Maschinefabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984)). Thus, Applicants respectfully assert that the rejection's argument that any functional hardware can also be performed/implemented by software is irrelevant, as the rejection to Claim 1 is under 35 U.S.C. § 102(e).

Claim 1 further recites, "wherein routing of data between the processor and the memory coupled to said memory router is not under control of software." Applicants respectfully submit that Kleinsorge fails to teach or suggest this claimed limitation. In contrast, Kleinsorge discloses a software-implemented method of routing memory requests. For example, in the "Summary of the Invention" Kleinsorge emphasizes the software control of the system. [R]esources [are] adaptively subdivided by software. This partitioning, which a system manager directs, is a software function (col. 4, lines 59-61).

At col. 8, lines 41-46 Kleinsorge provides further details indicating that Kleinsorge does not have a hardware implemented memory router, as claimed.

Kleinsorge discloses the construction of a configuration tree in memory, which represents all the hardware in the system. The tree contains all the software partitioning information, and the assignments of the hardware to partitions. Moreover, Kleinsorge discloses that a console program implements and enforces configuration constraints (col. 12, lines 5-6). Thus, Kleinsorge has *software implemented routing*, according to Applicants understanding.

For the foregoing rationale, Claim 1 is not anticipated nor rendered obvious by Kleinsorge. As such, allowance of Claim 1 is respectfully solicited.

Claims 14 and 21 also recite limitations directed to a hardware implemented memory router. For the reasons discussed in the response to Claim 1, Claims 14 and 21 are not anticipated by Kleinsorge.

Claims 2-3, 5-13, 15-17, 19-20, and 22-23 depend from Claims 1, 14, and 21, which are believed to be allowable for the foregoing reasons. As such, Claims 2-3, 5-13, 15-17, 19-20, and 22-23 are believed to be allowable and their allowance is earnestly solicited.

35 U.S.C. 103

Claims 4 and 18 are rejected under 35 U.S.C. §103 as being obvious over Kleinsorge. The rejection is respectfully traversed for the reasons below.

For the reasons discussed in the response to Claim 1, the limitations of Claim 1 are neither taught nor suggested by Kleinsorge. Thus, Claim 1 is not

rendered obvious over Kleinsorge. As Claim 4 depends from Claim 1, Claim 4 is not rendered obvious over Kleinsorge.

For the reasons discussed in the response to Claim 1, the limitations of Claim 14 are neither taught nor suggested by Kleinsorge. Thus, Claim 14 is not rendered obvious over Kleinsorge. As Claim 18 depends from Claim 14, Claim 18 is not rendered obvious over Kleinsorge.


As such, Claims 4 and 18 are believed to be allowable and their allowance is earnestly solicited.

### CONCLUSION

In light of the above listed remarks, reconsideration of the rejected claims is requested. Based on the amendments and arguments presented above, it is respectfully submitted that Claims 1-23 overcome the rejections of record. Therefore, allowance of Claims 1-23 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

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Respectfully submitted,  
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